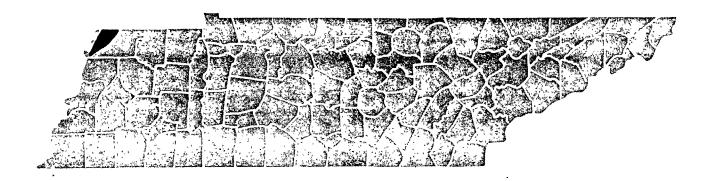




MAY 1984-APRIL 1985 WATER BUDGET OF REELFOOT LAKE
WITH ESTIMATES OF SEDIMENT INFLOW AND
CONCENTRATIONS OF PESTICIDES IN BOTTOM MATERIAL
IN TRIBUTARY STREAMS--BASIC DATA REPORT



Prepared by U.S. GEOLOGICAL SURVEY

in cooperation with TENNESSEE WILDLIFE RESOURCES AGENCY

and the TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT, DIVISION OF WATER MANAGEMENT

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Clarence H. Robbins, Jerry W. Garrett, and Dolores M. Mulderink

U.S. GEOLOGICAL SURVEY

Open-File Report 85-498

Prepared in cooperation with the TENNESSEE WILDLIFE RESOURCES AGENCY, and the TENNESSEE DEPARTMENT OF HEALTH AND ENVIRONMENT, DIVISION OF WATER MANAGEMENT



Nashville, Tennessee 1985

# UNITED STATES DEPARTMENT OF THE INTERIOR

# DONALD PAUL HODEL, Secretary

# GEOLOGICAL SURVEY

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For additional information write to:

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# CONVERSION FACTORS

For readers who may prefer to use International System of Units (SI) rather than the inch-pound units used herein, the conversion factors are listed below:

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
inch (in.) ton, short square mile (mi²) cubic foot per second (ft³/s) micromho per centimeter at 25° Celsius (µmhos/cm at 25°C)	25.40 0.9078 2.590 0.02832 1.0	millimeter (mm) megagram (Mg) square kilometer (km²) cubic meter per second (m³/s) microseimens per centimeter at 25° Celsius (µS/cm at 25°C)
cubic foot per second per square mile [(ft <sup>3</sup> /s)/mi <sup>2</sup> ]	0.01093	cubic meter per second per square kilometer [(m <sup>3</sup> /s)/km <sup>2</sup> ]

# MAY 1984-APRIL 1985 WATER BUDGET OF REELFOOT LAKE WITH ESTIMATES OF SEDIMENT INFLOW AND CONCENTRATIONS OF PESTICIDES IN BOTTOM MATERIAL IN TRIBUTARY STREAMS—BASIC DATA REPORT

Clarence H. Robbins, Jerry W. Garrett, and Dolores M. Mulderink

#### **ABSTRACT**

This report contains hydrologic data collected at Reelfoot Lake from May 1, 1984, through April 30, 1985. Additionally, suspended-sediment data and analyses of pesticides in stream-bottom material on three major tributaries to Reelfoot Lake are presented.

#### INTRODUCTION

Reelfoot Lake is located in Lake and Obion Counties in the northwest corner of Tennessee (fig. 1) and is the largest natural lake in the State. The lake is an important economic, environmental, and recreational resource to the people in the area and to the State of Tennessee. The natural eutropic succession rate of the lake has apparently been accelerated during the past several decades by land-use practices within its drainage basin. Effective management and restoration of the land and its resources has, therefore, become a priority objective of the State and local governments.

To aid in this management objective, the U.S. Geological Survey entered into a cooperatively funded study in May 1984 with the Tennessee Wildlife Resources Agency and the Tennessee Department of Health and Environment, Division of Water Management, to collect hydrologic data and prepare an annual water budget for Reelfoot Lake. This report presents and describes the data collected for that study. A second report presenting the water budget for Reelfoot Lake and describing the relations of various hydrologic components to the lake will be published late in 1985.

#### DESCRIPTION OF AREA

Reelfoot Lake covers approximately 24.2 mi<sup>2</sup> at a normal pool elevation of 282.2 feet above sea level and has a drainage area of 240 mi<sup>2</sup>, including a small area in Kentucky. In addition, the lake lies within the Mississippi embayment section of the Gulf Coastal Plain.

Three major tributaries, Reelfoot Creek, Indian Creek, and Running Slough, provide inflow to the lake and Running Reelfoot Bayou provides the only major outflow from the lake. Topographically, the area is characterized by several prominent physiographic features: Reelfoot Lake, Mississippi River and flood plain, a bluff line which bisects the basin along a northeast-southwest axis, and uplands east of the bluffs.

#### APPROACH

Continuous streamflow data was collected at four sites on the three major tributaries to Reelfoot Lake and at one site on the lake outflow channel (fig. 1). Daily rainfall and lake-stage data were each collected at two sites on the lake shore (fig. 1). Additionally, suspended-sediment samples were collected by automatic samplers and also manually during equipment maintenance visits at three of the four tributary inflow sites. At these three inflow sites, samples of streambottom material were collected at low flow once during the study period and were analyzed to determine the concentration of various pesticides. Periodic observations of ground-water levels were made at 30 wells in the Reelfoot Lake basin (fig. 1). Monitoring sites and types of data collected at each site are listed in table 1.

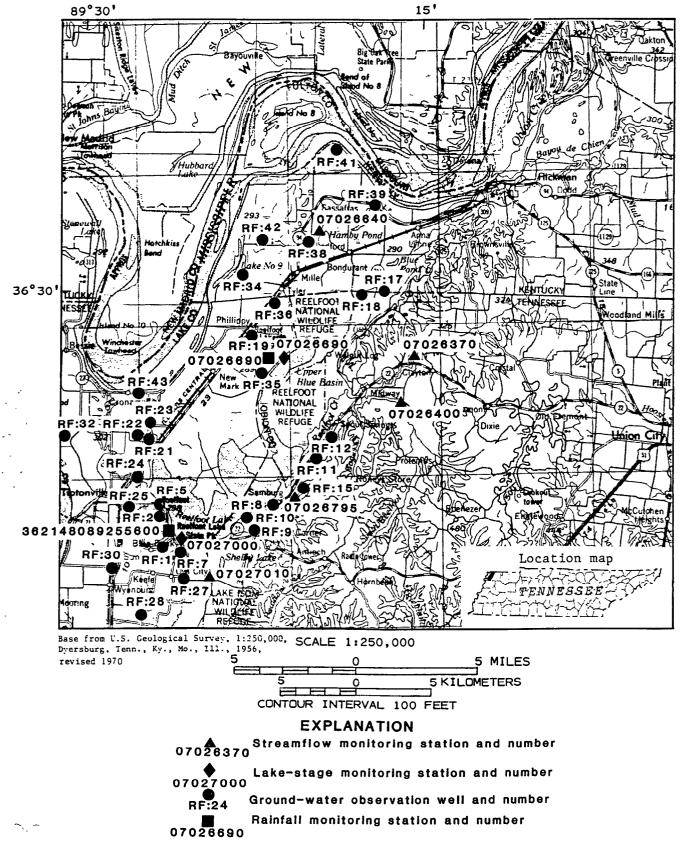


Figure 1.--Location of project area, Reelfoot Lake, streamflow monitoring stations, lake-stage monitoring stations, ground-water observation wells, and rainfall monitoring stations.

## Continuous streamflow and suspended sediment

07026370 North Reelfoot Creek at Hwy. 22, near Clayton, Tenn. 07026400 South Reelfoot Creek near Clayton, Tenn. 07026640 Running Slough near Ledford, Ky.

#### Continuous streamflow

07026795 Indian Creek near Samburg, Tenn. 07027010 Running Reelfoot Bayou near Owl City, Tenn.

## Stream-bottom material samples, once annually

07026370 North Reelfoot Creek at Hwy. 22, near Clayton, Tenn. 07026400 South Reelfoot Creek near Clayton, Tenn. 07026640 Running Slough near Ledford, Ky.

# Daily rainfall accumulation

07026690 Reelfoot Lake near Phillippy, Tenn. 362148089255600 Blue Bank rain gage at Blue Bank, Tenn.

# Daily lake stage

07026690 Reelfoot Lake near Phillippy, Tenn. 07027000 Reelfoot Lake near Tiptonville, Tenn.

## Periodic observations of ground-water levels

RF:1, RF:2, RF:5, RF:7, RF:8, RF:9, RF:10, RF:11, RF:12, RF:15, RF:17, RF:18, RF:19, RF:21, RF:22, RF:23, RF:24, RF:25, RF:27, RF:28, RF:30, RF:32, RF:34, RF:35, RF:36, RF:38, RF:39, RF:41, RF:42, RF:43

#### EXPLANATION OF DATA

Daily streamflow and sediment-discharge data and results of the stream-bottom material analyses are given in tables 2 through 10; daily rainfall accumulation and lake-stage data are given in tables 11 through 14; and ground-water data are shown in graphical form in figures 2 through 31.

Hydrologic data for the period May 1 to December 31, 1984, were used to describe the surface-water and ground-water hydrology of the Reelfoot Lake basin (Robbins, 1985) and to calibrate a ground-water flow model (McDonald and Harbaugh, 1984) of the Reelfoot Lake study area. Streamflow discharge measurements made subsequent to January 1, 1985, at the South Reelfoot Creek and Indian Creek gaging stations indicated that the upper end of the stage-discharge ratings at these two stations needed to be revised. The result of these changes was

generally an increase in the monthly total runoff computed for each station. The data presented in this report are final data and reflect the rating revisions. Therefore, there are slight differences between some monthly discharge totals presented herein and those presented by Robbins (1985).

# REFERENCES

McDonald, M. C., and Harbaugh, A. W., 1984, A modular three-dimensional finite-difference ground-water flow model: U.S. Geological Survey Open-file Report 83-875, 528 p.

Robbins, C. H., 1985, Hydrology of the Reelfoot Lake basin, Obion and Lake Counties, northwestern Tennessee: U.S. Geological Survey Water Resources Investigations Report 85-4097, 29 p. HYDROLOGIC DATA

Table 2.--Daily discharge for streamflow station 07026370 North Reelfoot Creek at Hwy. 22, near Clayton, Tenn.

LOCATION.--Lat 36°27'50", long 89°15'13", Obion County, Hydrologic Unit 08010202, on left bank on upstream side of bridge on State Highway 22, 0.9 mile northwest of Clayton, 9.9 miles west of intersection of State Highways 22 and 5, and 11.8 miles northeast of the spillway at Reelfoot Lake.

DRAINAGE AREA .-- 56.3 mi2.

DIVITION	IL AILLA	-50.5 111-1	,									
		Mea	n daily	discharge,	in cubi	c feet per	second,	May 1984	to April	1985		
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1 2 3 4 5	161 90 213 142 82	11 8.7 7.2 5.1 3.6	.66 .35 .21 .15	.85 .24 .11 .05	.00 .00 .00	.00 .00 .00 .00	15 40 19 15 11	31 22 16 13 12	557 352 314 247 104	113 71 61 36 39	36 34 29 72 66	211 93 52 36 51
6 7 8 9 10	818 1640 1360 537 402	2.6 2.7 2.1 1.3 .86	8.2 5.6 3.8 2.5 1.6	.00 .00 .00 .00	.00 .00 .00 .74	735 454 310 283 260	8.2 5.9 4.3 3.5 5.2	14 11 11 11	59 96 108 85 110	50 51 40 24 192	40 30 199 397 225	42 28 22 18 16
11 12 13 14 15	353 299 256 164 79	.78 .53 .40 .29 .19	1.0 .76 .46 .29	.00 .00 .00 .00	1.9 .27 .00 .00	195 66 29 19 16	4.2 3.2 2.3 2.1 4.7	9.7 9.5 13 18 17	103 53 40 28 23	726 392 299 170 103	106 58 40 43 31	14 12 11 68 55
16 17 18 19 20	41 26 19 15 12	75 44 18 9.2 5.4	38 13 9.2 5.5 3.5	.00 .00 .00 .00	.00 .00 .00 .00	89 231 83 161 107	4.1 2.8 459 299 185	13 96 694 544 417	20 45 45 47 40	70 189 360 415 341	25 21 17 15 14	33 24 18 15
21 22 23 24 25	11 20 16 11 8.8	100 17 33 25 13	2.2 1.3 .73 .38 .25	.00 .00 .00 .00	.00 .00 .00	277 110 76 61 38	74 38 24 19 15	1230 485 370 410 341	31 24 21 23 34	250 153 173 375 202	19 27 23 21 17	9.0 7.4 15 63 27
26 27 28 29 30 31	7.3 129 59 33 21 14	7.4 4.4 3.0 1.9 1.1	.18 11 14 7.5 4.3 2.5	.00 .00 .00 .01 .00	.00 .00 .00 .00	26 19 14 12 9.9 8.7	12 246 189 97 49	220 101 60 42 947 489	22 19 19 17 35 247	97 56 40 	14 15 15 13 16 490	19 438 231 105 58
TOTAL MEAN MAX MIN CFSM IN.	7039.1 227 1640 7.3 4.03 4.65	404.75 13.5 100 .19 .24 .27	176.41 5.69 38 .15 .10	1.27 .04 .85 .00 .00	3.08 .10 1.9 .00 .00	3689.60 119 735 .00 2.11 2.44	1856.5 61.9 459 2.1 1.10 1.23	6678.2 215 1230 9.5 3.82 4.41	2968 95.7 557 17 1.70 1.96	5088 182 726 24 3.23 3.36	2168 69.9 490 13 1.24 1.43	1802.4 60.1 438 7.4 1.07

Table 3.--Daily discharge for streamflow station 07026400 South Reelfoot Creek near Clayton, Tenn.

LOCATION.--Lat 36°26'20", long 89°15'37", Obion County, Hydrologic Unit 08010202, at county road bridge, 1.7 miles above confluence with North Reelfoot Creek, and 2 miles southwest of Clayton.

DRAINAGE AREA. -- 38.6 mi2.

		M	lean daily	discharge,	in cub	ic feet per	second,	May 1984	to April	1985		
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	43	21	.34	1.1	.09	-00	52	3.6	350	46	48	37
2	36	15	.26	.72	.15	.00	56	5.9	52	44	48	26
3	215 -	13	.64	.45	.10	.00	17	5.8	43	37	45	23
2 3 4	98	iĭ	.80	.29	.05	.00	18	6.5	44	36	67	20
5	44	9.9	3.5							38	49	34
	. 44	3.3		. 19	.02	.00	18	16	41	30	49	
6	509	9.7	2.3	.13	.01	450	15	21	41	39	42	22
7	1050	17	1.4	.06	.00	140	12	12	44	34	42	16
8 9	150	11	1.1	.04	.00	90	31	11	43	30	66	13
9	110 -	8.3	.91	.03	8.2	67	11	8.9	39	31	88	14
10	84	5.6	1.1	.02	7.5	50	15	12	48	295	52	15
11	60	3.9	.80	.01	7.1	35	7.3	9.9	38	631	51	16
12	47	3.4	7.9	.01	5.1	18	8.7	11	33	118	46	16
13	40	2.2	1.6	.03	2.7	14	9.7	13	31	102	44	13
14	32	2.0	1.3	.02	1.7	20	11	18	33	91	49	53
15	, 24	2.2	1.5	.02	1.0	30	15	15	31	82	42	24
16			1.0	00				•			••	1.5
16	21	2.3	1.9	.03	.60	36	5.0	15	31	81	40	15
17	18 .	1.9	.81	.04	.35	43	3.0	45	42	127	38	10
18	16	1.1	.52	.03	.27	29	613	808	37	160	34	6.7
19	17	.58	1.2	.02	. 13	116	94	228	34	107	32	6.4
20	21	.47	.59	.01	.08	47	49	121	29	77	30	7.3
21	24	.71	.37	.00	.05	199	21	696	29	66	37	4.2
22	34	.57	.26									
22			•20	-00	.03	38	13	94	30	59	42	5.4
23	15	1.8	. 19	.05	.17	34	20	29	30	160	31	49
24	7.4	1.9	. 14	.02	.04	27	32	52	33	184	26	57
25	9.8	.87	.11	.02	-01	19	39	28	34	58	22	25
26	22	.26	.59	.03	.04	24	34	16	28	52	20	23
27	726	.44	8.6	.02	.01	31	182	14	29	48	23	165
28	87	.81	1.6	.01	.00	38	45	13	30	46	23	56
29	37	.84	1.2	. 13	.00	37	24	12	29		20	32
30	33	.61	.90	.07	.00	37 32			54		22	26
31							12	866				20
31	29		1.8	.05		37		181	196		478	
TOTAL	3659.2	150.36	46.23	3.65	35.50	1701.00	1462.7	3387.6	1606	2879	1697	830.0
MEAN	118	5.01	1.49	.12	1.18	54.9	48.8	109	51.8	103	54.7	27.7
MAX	1050	21	8.6	1.1	8.2	450	613	866	350	631	478	165
MIN	7.4	.26	.11	.00	.00	.00	3.0	3.6	28	30	20	4.2
CFSM	3.06	.13	.04	.00	.03	1.42	1.26		1.34	2.67	1.42	.72
								2.82				
IN.	3.53	. 14	.04	.00	.03	1.64	1.41	3.26	1.55	2.77	1.64	.80

Table 4.--Daily discharge for streamflow station 07026640 Running Slough near Ledford, Ky.

LOCATION.--Lat 36°32'28", long 89°18'59", Fulton County, Hydrologic Unit 08010202, on county road on the right bank, 1.1 miles northwest of Ledford.

DRAINAGE AREA. -- 10.8 mi<sup>2</sup>.

Mean daily discharge,	in cubic feet	per second.	May 1984 to April	1985
-----------------------	---------------	-------------	-------------------	------

						. cco pc.	3000.10,	1143 1304	CO Api II	1 303		
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	60	25	.00	.00	.00	.00	.00	11	86	7.2	13	38
ż	52	ī9	.00	.00	.00	.00	.00	9.8	67	8.7	. 19	25
2	64	13	.00	.00	.00	.00	.00	9.6	51	6.3	24	15
4	77	5.1	.00	.00	.00	.00				5.7	30	12
		2.5					.00	10	41			12
5	63	2.5	.00	.00	.00	.00	.00	11	39	5.9	36	15
6	113	1.7	.00	.00	.00	.00	.00	11	39	6.2	37	20
7	222	1.3	.18	.00	.00	.00	.00	10	41	6.0	37	24
8	259	1.1	.32	.00	.00	.00	.00	10	42	4.8	40	22
9	210	.50	.34	.00	.00	.00	.00	9.5	40	3.9	54	21
10	168	.07	.34	.00	.00	.00	.00	9.2	38	8.4	53	21 21
11	126	.00	.35	.00	.00	.00	.00	8.6	35	57	51	22
12	99	.00	.23	.00	.00	.00	.00	7.8	25	5 <i>9</i>	48	22
13	87	.03	.03	.00	.00	.00	.00	7.6	18	50	45	20
14	83	.03	.00	.00	.00			7.0	14	39		33
15	78	.00	.00		.00	.00	.00	8.2 9.7			45	57
15	70	.00	.00	.00	.00	.00	.00	9.7	12	30	43	5/
16	73	.00	.73	.00	.00	.49	.00	9.6	10	22	39	46
17	69	.00	7.2	.00	.00	17	.00	6.8	10	22	36	34
18	66	.00	5.1	.00	.00	15	1.4	5.3	14	38	32	23
19	64	-00	2.3	.00	.00	ii	2.4	23	15	49	34	13
20	62	.00	.94	.00	.00	6.1	1.5	20	7.9	52	34 31	7.6
20	UZ.	.00	•37	.00	.00	0.1	1.5	20	7.9	52	31	7.0
21	60	.01	.42	.00	.00	16	.09	101	4.5	45	29	3.6
22	60	9.6	.17	.00	.00	9.0	.00	137	3.9	34	34	3.3
23	61	9.1	.00	.00	.00	3.4	.00	94	3.9	28	35	9.7
24	57	5.3	.00	.00	.00	.49	.00	68	4.2	53	30	67
25	52	4.5	.00	.00								
	52	4.5	.00	•00	.00	.00	.00	52	4.9	39	23	45
26	46	.54	.00	.00	.00	.00	.00	39	4.2	24	16	28
27	48	.00	.00	.00	.00	.00	3.5	29	3.6	12	9.7	145
28	57	.00	.00	•00	.00	.00	11	20	3.1	7.9	9.6	208
29	48	.00	.00	.00	.00	.00	17	14	2.6		7.7	154
30	38	.00	.00	.00	.00	.00	14	57	2.9		5.5	122
31	32		.00	.00		.00		85	6.4		33	
TOTAL	2654	98.36	18.65	.00	.00	78.48	50.89	903.7	689.1	724.0	979.5	1276.2
MEAN	85.6	3.28	.60	.00	.00	2.53	1.70	29.2	22.2		31.6	42.5
MAX	259	25	7.2			2.53 17		137	22.2 86	25.9		42.5
				.00	.00		17	13/		59	54	208
MIN	32	.00	.00	.00	.00	.00	.00	5.3	2.6	3.9	5.5	3.3
CFSM	7.93	.30 .34	•06	.00	.00	.23 .27	.16	2.70	2.06	2.40	2.93	3.94
IN.	9. 14	.34	.06	.00	.00	.2/	.18	3.11	2.37	2.49	3.37	4.40

Table 5.--Daily discharge for streamflow station 07026795 Indian Creek near Samburg, Tenn.

LOCATION.--Lat 36°22'59", long 89°20'32", Obion County, Hydrologic Unit 08010202, on left bank upstream from a bridge on county road, 0.6 mile northeast of the four-way stop on State Highway 22 in Samburg.

## DRAINAGE AREA .-- 8.01 mi2.

Mean	daily di	scharge, in	cubic	feet per	second,	September	1984 to Apr	ril 1985
DAY	SEP	ОСТ	NOV	DEC	JA	e FEB	MAR	APR
1 2 3 4 5	.02 .10 .03 .01	.00 .00 .00 .00	1.5 1.5 .62 .76	3.3 3.1 3.0 2.8 3.3	10 7.7 8.4	8.9	11	9.3 7.1 6.4 6.0 13
6 7 8 9 10	.09 .07 .02 9.1	244 6.5 2.8 2.1 1.8	.55 .46 .57 .58	3.1	6. 6.3	1 4.7 3 4.3 5 4.4	6.7 8.4	7.8 6.0 5.2 4.8 4.5
11 12 13 14 15	2.3 .30 .10 .06 .03	3.4 3.5 4.2 4.4 5.4	.85 .89 .93 .98	2.9 3.0 2.9 3.1 2.9	4.9 4.9 5.3	23 9 14 3 11	7.9 6.1 5.8 7.2 5.6	4.8 4.9 4.5 31
16 17 18 19 20	.01 .01 .13 .18	4.7 5.8 3.2 16	1.3 1.3 90 9.8 4.5	2.8 8.4 136 35 29	5.3 9.6 7.8 7.3 6.6	5 16 3 28 3 24	5.3 5.2 4.8 5.0 5.1	7.0 5.5 4.7 4.1 3.6
21 22 23 24 25	.17 .18 5.1 .37 .04	.96 .88 .72 .49	3.5 3.1 2.8 2.8 2.5	93 18 9.5 9.4 8.4	7.4	3 13 2 38 4 33	6.8 9.5 7.1 5.7 5.0	3.3 3.1 7.9 8.1 4.0
26 27 28 29 30 31	1.3 .03 .01 .00	.32 .24 .46 .60 .48	2.6 41 9.2 5.0 4.0	6.5 5.3 4.7 3.5 144 25	5.7	7 8.0 2 7.1	6.2	4.3 39 12 6.8 5.2
TOTAL MEAN MAX MIN CFSM IN.	20.91 .70 9.1 .00 .09	343.55 11.1 244 .00 1.39 1.60	196.98 6.57 90 .46 .82	585.2 18.9 144 2.8 2.36 2.72	8.5 42 4.9 1.0	5 17.7 2 78 9 4.3 7 2.21	8.96 75 4.8 1.12	244.9 8.16 39 3.1 1.02 1.14

Table 6.--Daily discharge for streamflow station 07027010 Running Reelfoot Bayou near Owl City, Tenn.

LOCATION.--Lat 36°19'53", long 89°24'02", Obion County, Hydrologic Unit 08010202, at bridge on county road 1.5 miles downstream of the spillway at Reelfoot Lake and 1.6 miles east of Owl City.

DRAINAGE AREA .-- 247 mi2.

DRAINA	GE AREA.	24/ m14.	•									
		Mo	ean daily	discharge	, in cub	ic feet p	er second,	May 1984	to April	1985		
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	675	487	9.2	4.1	3.0	1.5	19	221	1490	30	1120	250
2	681	315	8.7	261	3.4	1.5	181	220	1510	30	1080	415
2	747	308	8.3	549	3.4	1.5	272	223	1570	30	1010	397
3 4	762	296	8.0	541	3.5	1.5	246	217	1650	30	645	337
7	738	272	8.8	379	3.5	1.6	245	222	1660	31	402	327
5	/ 30	212	0.0	3/3	3.3	1.0	243	222	1000	3,	402	327
6	843	250	8.5	6.5	3.7	637	235	206	1640	34	398	364
7	1550	166	7.6	2.1	3.6	139	111	64	1420	35	84	372
8	1690	22	7.1	2.4	3.5	11	9.2	59	787	36	24	366
9	1660	20	7.4	2.5	6.4	7.4	9.3	61	662	37	34	348
10	1670	18	7.5	2.3	3.0	9.4	11	63	1040	102	27	321
	1070				3.0	•	• •	•				
11	1670	18	7.5	2.3	4.0	12	11	65	1500	955	29	306
12	1670	21	7.7	2.5	3.6	13	11	62	1500	1340	37	306
13	1640	18	6.6	2.9	2.9	13	12	62	1460	1310	34	293
14	1620	17	6.5	3.4	1.3	10	14	281	1410	1290	49	356
15	1580	16	7.3	3.6	. 14	11	17	310	1350	1130	97	362
							3.0	007	1000	450	267	346
16	1540	15	326	3.2	.17	9.9	18	287	1260	450	367	
17	1490	15	673	3.3	.65	11	20	304	1230	136	379	336
18	1430	16	652	3.2	1.4	11	258	1110	1010	189	350	315
19	1350	15	378	2.9	1.4	43	369	807	586	747	321	297
20	1270	11	8.1	2.8	.99	25	693	967	571	1370	319	286
21	1220	11	5.6	2.9	.98	114	669	1300	573	1370	342	276
22	1170	12	5.2	3.2	1.2	18	622	1280	488	1340	368	149
	1120	12	4.6	3.1	2.4	97	578	1270	451	1310	329	66
23	700	11	3.0	3.0	2.7	270	542	1280	428	1400	327	81
24					2./			1300	409	1330	334	104
25	273	11	2.6	3.2	1.9	242	503	1300	409	1330	334	104
26	50	11	2.5	3.3	1.8	110	446	1250	382	1290	283	152
27	925	11	3.1	3.4	1.7	12	620	951	373	1260	102	252
28	922	ii	2.9	3.4	1.6	14	465	532	205	1190	91	517
29	722	10	3.3	3.2	1.5	15	254	483	37		100	800
30	665	9.8	3.5	2.9	1.5	12	216	940	35		113	806
31	617		3.8	1.5		13	2.10	1190	79		272	
31	017		3.0	1.5		13		1130	13		212	
TOTAL	34660	2425.8	2193.9	1813.1	70.83	1887.3	7676.5	17587	28766	19802	9467	9903
MEAN	1118	80.9	70.8	58.5	2.36	60.9	256	567	928	707	305	330
MAX	1690	487	673	549	6.4	637	693	1300	1660	1400	1120	806
MIN	50	9.8	2.5	1.5	.14	1.5	9.2	59	35	30	24	66
CFSM	4.53	.33	.29	.24	.01	.25	1.04	2.30	3.76	2.86	1.23	1.34
IN.	5.22	.37	.33	.27	.01	.28	1.16	2.65	4.33	2.98	1.43	1.49
14.	3.22	,		• • • •	•01	• 20		2.00		2.55		

Table 7.--Daily suspended-sediment discharge for streamflow station 07026370 North Reelfoot Creek at Hwy. 22, near Clayton, Tenn.

Suspended-sediment discharge, in tons per day, May to October 1984

		MEAN		<b>30</b> ,	MEAN	, 4-3, 11-3		MEAN	
DAY	MEAN DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	TRATION	SEDIMENT DISCHARGE (TONS/DAY)
		MAY-			JUNE			JULY	
1 2 3 4 5	161 90 213 142 82	630 490 1520 610 400	274 119 824 234 89	11 8.7 7.2 5.1 3.7	103 92 91 87 83	3.1 2.2 1.8 1.2	.66 .35 .21 .15	76 68 61 53 2320	.14 .06 .03 .02 447
6 7 8 9 10	818 1640 1360 537 402	3090 1490 690 695 592	7900 7110 2530 1030 643	2.7 2.7 2.1 1.3 .86	78 72 67 60 55	.57 .52 .38 .21 .13	8.2 5.6 3.8 2.5 1.6	175 140 122 105 93	3.9 2.1 1.3 .71 .40
11 12 13 14 15	353 299 256 164 79	520 460 420 360 250	496 371 284 159 53	.78 .53 .40 .29	49 46 43 40 37	.10 .07 .05 .03 .02	1.1 .76 .40 .29 .29	82 72 67 65 64	.24 .15 .08 .05
16 17 18 19 20	41 26 19 15	200 150 115 105 95	22 11 5.9 3.1 3.1	75 44 18 9.2 5.4	1040 510 310 160 110	201 61 15 4.0 1.6	39 13 9.2 5.5 3.5	1500 210 118 108 97	277 7.4 2.9 1.6 .92
21 22 23 24 25	11 20 16 11 8.8	96 200 172 151 125	2.9 11 7.4 4.5 3.0	100 17 33 25	3580 600 1800 500 250	1880 28 225 34 8.8	2.2 1.3 .73 .38 .25	87 76 65 59 56	.52 .27 .13 .06 .04
26 27 28 29 30 31	7.3 129 59 33 21 14	105 956 510 285 215 121	2.1 554 81 25 12 4.6	7.4 4.4 3.0 1.9 1.1	140 121 104 92 84	2.8 1.4 .84 .47 .25	.18 11 14 7.5 4.3 2.5	53 339 176 148 135 155	.03 9.5 6.7 3.0 1.6 1.0
TOTAL	7039.1	•••	22868.6	404.95		2475.37	177.51		768.90
		AUGUST			SEP FEMBER			OCTOBER	
1 2 3 4 5	.85 .24 .11 .05 .01	106 95 75 49 10	.24 .06 .02 .00	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00
6 7 8 9 10	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	.00 .00 .00 .74 .17	0 0 0 71 10	.00 .00 .00 .31	735 454 310 283 260	738 490 320 260 230	3520 601 268 199 161
11 12 13 14 15	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	1.9 .27 .00 .00	57 20 0 0	.80 .01 .00 .00	195 66 29 19 16	220 150 120 100 105	116 27 9.4 5.1 4.5
16 17 18 19 20	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	89 231 83 161 107	1000 571 225 500 452	842 582 50 284 211
21 22 23 24 25	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	277 110 76 61 38	422 200 155 290 98	377 59 32 48 10
26 27 28 - 29 30 31	.00 .00 .00 .01 .00	0 0 0 45 0	.00 .00 .00 .00 .00	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	26 19 14 12 10 8.7	85 83 82 80 79 79	6.0 4.3 3.1 2.6 2.1
TOTAL	1.27		0.32	3.08		1.12	3689.70		7426.00

Table 7.--Daily suspended-sediment discharge for streamflow station 07026370 North Reelfoot Creek at Hwy. 22, near Clayton, Tenn.--Continued

Suspended-sediment discharge, in tons per day, November 1984 to April 1985

				•	•	• •			
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)		MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		NOVEMBER			DECEMBER			JANUARY	
1 2 3 4 5	15 40 19 15	167 207 119 102 91	12 24 6.1 4.1 2.7	31 22 16 13 12	107 84 70 58 49	9.0 5.0 3.0 2.0 1.6	557 352 314 247 104	527 290 275 260 205	903 276 233 173 58
6 7 8 9 10	8.2 5.9 4.3 3.5 5.2	89 80 69 75 98	2.0 1.3 .80 .71 1.4	14 11 11 11	62 58 54 47 40	2.3 1.7 1.6 1.4 1.2	59 96 108 85 110	160 141 110 78 98	25 39 32 18 29
11 12 13 14 15	4.2 3.2 2.3 2.1 4.7	80 72 65 55 85	.91 .62 .40 .31	9.7 9.5 13 18 17	35 32 65 91 75	.92 .82 2.3 4.4 3.4	103 53 40 28 23	79 64 80 69 72	22 9.2 8.6 5.2 4.5
16 17 18 19 20	4.1 2.8 459 299 185	87 81 764 425 315	.96 .61 1240 343 157	13 96 694 544 417	57 260 1090 631 435	2.0 305 2090 1000 490	20 45 45 47 40	88 181 189 169 172	4.8 22 23 21 19
21 22 23 24 25	74 38 24 19 15	175 140 125 105 85	35 14 8.1 5.4 3.4	1230 485 370 410 341	649 385 285 466 299	2230 504 285 611 284	31 24 21 23 34	150 122 98 85 110	13 7.9 5.6 5.3 10
26 27 28 29 30 31	12 246 189 97 49	62 538 280 165 130	2.0 489 143 43 17	220 101 60 42 947 489	180 140 125 115 1040 590	107 38 20 13 3360 796	22 19 19 17 35 247	105 94 89 83 282 272	6.2 4.8 4.6 3.8 88 211
TOTAL	1856.5		2559.92	6678.2		12175.64	2968		2285.5
		FEBRUARY			MARCH			APRIL	
1 2 3 4 5	113 71 61 36 39	144 128 279 249 248	44 25 48 24 26	36 34 29 72 66	116 121 106 212 210	11 11 8.3 56 37	211 93 52 36 51	650 450 300 240 258	370 113 42 23 42
6 7 8 9 10	50 51 40 24 192	280 267 251 218 474	38 37 27 14 623	40 30 199 397 225	128 975	16 10 2120 936 228	42 28 22 18 16	224 185 159 141 124	25 14 9.4 6.9 5.4
11 12 13 14 15	726 392 299 170 103	617 370 215 184 160	1280 392 174 84 44	106 58 40 43 31	300 250 211 178 157	86 39 23 21 13	14 12 11 68 55	106 90 83 432 240	4.0 2.9 2.5 140 36
16 17 18 19 20	70 189 360 415 341	145 355 372 349 272	27 253 416 402 252	25 21 17 15 14	149 141 138 130 128	10 8.0 6.3 5.3 4.8	33 24 18 15	151 130 122 120 118	13 8.4 5.9 4.9 3.5
21 22 23 24 25	250 153 173 375 202	212 200 668 1080 425	143 83 789 1380 232	19 27 23 21 17	141 160 155 148 145	7.2 12 9.6 8.4 6.7	9.1 7.4 15 63 27	117 115 213 432 240	2.9 2.3 17 89 17
26 27 28 29 30 31	97 56 40 	242 180 132	63 27 14	14 15 15 13 16 490	143 141 135 129 215 1740	5.4 5.7 5.5 4.5 9.3 3300	19 438 231 105 58	170 1480 445 275 175	8.7 1910 278 78 27
TOTAL	5088		6961	2168		7024.0	1802.5		3301.7

Table 8.--Daily suspended-sediment discharge for streamflow station 07026400 South Reelfoot Creek near Clayton, Tenn.

Suspended-sediment discharge, in tons per day, May to October 1984

see Ir	DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CUNCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
			MAY			JUNE			JULY	
	1 2 3 4 5	43 36 215 98 44	2040 1010 375	1800 452 45	21 15 13 11 9.9	125 125 90 88 93	7.1 5.1 3.2 2.6 2.5	.34 .26 .64 .80 3.5	26 23 50 53 57	.02 .02 .09 .11 .54
<i>.</i> :	- 6 7 8 9 10	509 1050 150 110 84	2330   375	4700   85	9.7 17 11 8.3 5.6	97 105 93 87 81	2.5 4.8 2.8 1.9 1.2	2.3 1.4 1.1 .91	80 74 67 59 63	.50 .28 .20 .14 .19
· · · · · · · · · · · · · · · · · · ·	11 12 13 14 - 15	60 47 40 32 24	150 135 104 79 68	24 17 11 6.8 4.4	3.9 3.4 2.2 2.0 2.2	76 71 64 45 48	.80 .65 .38 .24 .29	.80 7.9 1.6 1.3	56 206 130 120 115	.12 4.4 .56 .42 -47
÷ .	16 17 18 19 20	21 18 16 17 21	55 45 39 34 30	3.1 2.2 1.7 1.6 1.7	2.3 1.9 1.1 .58 .47	50 47 38 35 35	.31 .24 .11 .05 .04	1.9 .81 .52 1.2 .59	141 116 100 108 95	.72 .25 .14 .35
	21 22 23 24 25	24 34 15 7.4 9.8	32 742 310 230 150	2.1 97 13 4.6 4.0	.71 .57 1.8 1.9 .87	35 30 57 59 50	.07 .05 28 .30 .12	.37 .26 .19 .14	87 80 79 75 74	.09 .06 .04 .03 .02
•	26 27 28 29 30 31	22 726 87 37 33 29	1270 7460 1000 500 350 230	97 18500 235 50 31 18	.26 .44 .81 .84 .61	40 49 47 32 28	.03 .06 .10 .07 .05	.59 8.6 1.6 1.2 .90 1.8	105 1080 290 175 140 105	.17 25 1.3 .57 .34 .51
•	TOTAL	3659.2		26207.2	150.36		37.94	46.23		37.80
			AUGUST			SEPTEMBER			OCTOBER	
	1 2 3 4 5	1.1 .72 .45 .29 .19	92 80 65 62 61	.27 .16 .08 .05 .03	.09 .15 .10 .05	30 50 30 30 30	.00 .02 .00 .00	0 0 0 0	0 0 0 0	.00 .00 .00 .00
	6 7 8 9 10	.13 .06 .04 .03	59 58 51 49 46	.02 .00 .00 .00	.01 .00 .00 8.2 7.5	30 0 0 645 300	.00 .00 .00 14 6.1	450 140 90 67 50	272 235	49 32
	11 12 13 14 15	.01 .01 .03 .02 .02	46 50 50 40 40	.00 .00 .00 .00	7.1 5.1 2.7 1.7	300 150 80 75 50	5.8 2.1 .58 .34 .14	35 18 14 20 30	228 225 211 199 170	22 11 8.0 11 14
	16 17 18 19 20	.03 .04 .03 .02 .01	30 30 20 20 10	.00 .00 .00 .00	.60 .35 .27 .13 .08	50 50 50 50 50	.08 .05 .04 .02 .01	36 43 29 116 47	408 928 575 1450 840	49 123 45 703 308
	21 22 23 24 25	.00 .00 .05 .02 .02	0 0 30 30 30	.00 .00 .00 .00	.05 .03 .17 .04 .01	50 50 100 100 0	.00 .00 .05 .01	199 38 34 27 19	1070 560 500 215 149	1170 57 46 16 7.6
• .•	26 27 28 29 30 31	.03 .02 .01 .13 .07	30 30 30 40 30 30	.00 .00 .00 .01 .00	.04 .01 .00 .00	50 50 0 0	.00 .00 .00 .00	24 31 38 37 32 37	161 151 156 159 98 78	10 13 16 16 8.5 7.8
	TOTAL	3.65	**-	0.62	35.50			1171		2742.90

Table 8.--Daily suspended-sediment discharge for streamflow station 07026400 South Reelfoot Creek near Clayton, Tenn.--Continued

Suspended-sediment discharge, in tons per day, November 1984 to April 1985

		303pcnoce-	3C41MC114 413C	ilai ye, ili ci			T LO Aprili	303	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)		SEDIMENT DISCHARGE (TONS/DAY)
		NOVEMBER			DECEMBER			JANUARY	
1 2 3 4 5	52 56 17 18 18	277 478 170 180 163	81 117 7.8 8.7 7.9	3.6 5.9 5.8 6.5	37 90 84 63 61	.36 1.4 1.3 1.1 2.6	350 52 43 44 41	1980 300 219 190 161	2560 42 25 23 18
6 7 8 9 10	15 12 11 11 15	169 128 98 74 154	6.8 4.1 2.9 2.2 6.7	21 12 11 8.9 12	65 31 28 26 35	3.7 1.0 .83 .62 1.1	41 44 43 39 48	131 115 119 109 148	15 14 14 11
11 12 13 14 15	7.3 8.7 9.7 11	111 88 72 58 71	2.2 2.1 1.9 1.7 2.9	9.9 11 13 18 15	25 25 34 55 54	.67 .74 1.2 2.7 2.2	38 33 31 33 31	111 86 80 47 33	11 7.7 6.7 4.2 2.8
16 17 18 19 20	5.0 3.0 613 94 49	75 79 1840 570 250	1.0 .64 4790 145 33	15 45 808 228 121	40 617 2620 730 760	1.6 382 7780 691 648	31 42 37 34 29	32 67 62 72 72	2.7 7.6 6.2 6.6 5.6
21 22 23 24 25	21 13 20 32 39	97 66 51 68 49	5.5 2.3 2.8 5.9 5.2	696 94 29 52 28	1200 290 149 402 260	2550 74 12 108 20	29 30 30 33 34	60 57 55 69 71	4.7 4.6 4.5 6.1 6.5
26 27 28 29 30 31	34 182 45 24 12	57 928 200 53 42	5.2 645 24 3.4 1.4	16 14 13 12 866 181	150 103 86 80 1830 999	6.5 3.9 3.0 2.6 6870 625	28 29 30 29 54 196	72 80 71 79 725 2120	5.4 6.3 5.8 6.2 426 1850
TOTAL	1462.7		5926.2	3387.6		19799.12	1606		5128.2
		FEBRUARY			MARCH			APRIL	
1	46	380	47	48	72	9.3	37	390	39
2 3 4 5	44 37 36 38	168 129 110 90	20 13 11 9.2	48 45 67 49	68 46 381 130	8.8 5.6 89 17	26 23 20 34	190 91 85 690	13 5.7 4.6 101
6 7 8 9 10	39 34 30 31 295	75 60 29 24 1720	7.9 5.5 2.3 2.0 4610	42 42 66 88 52	66 55 398 1140 200	7.5 6.2 191 419 28	22 16 13 14 15	200 93 83 72 66	12 4.0 2.9 2.7 2.7
11 12 13 14 15	631 118 102 91 82	1730 450 400 78 45	4670 143 110 19 10	51 46 44 49 42	95 81 59 51 35	13 10 7.0 6.7 4.0	16 16 13 53 24	61 58 52 655 552	2.6 2.5 1.8 189 40
16 17 18 19 20	81 127 160 107 77	38 191 354 261 180	8.3 82 223 80 37	40 38 34 32 30	34 32 29 25 24	3.7 3.3 2.7 2.2 1.9	15 10 6.7 6.4 7.3	97 58 49 50 52	3.9 1.6 .89 .86 1.0
21 22 23 24 25	66 59 160 184 58	150 110 1050 1420 310	27 18 1840 1290 49	37 42 31 26 22	45 110 82 58 38	4.5 12 6.9 4.1 2.3	4.2 5.4 49 57 25	45 41 1070 1200 190	.51 .60 747 394 13
26 27 28 29 30 31	52 48 46 	120 98 81	17 13 10	20 23 23 20 22 478	28 35 35 29 269 2980	1.5 2.2 2.2 1.6 31 8280	23 165 56 32 26	190 1600 445 180 180	12 1010 76 16 13
TOTAL	2879		13374.2	1697		9184.2	830.0		2713.86

Table 9.--Daily suspended-sediment discharge for streamflow station 07026640 Running Slough near Ledford, Ky.

Suspended-sediment discharge, in tons per day, May to October 1984

		565/		discharge,	in cons per	day, may to	000000 1301		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		MAY	•		JUNE			JULY	
1 2 .3 4 5	60 52 64 77 63	132 82 180 212 96	21 12 31 44 16	25 19 13 5.1 2.5	71 73 75 75 75	4.8 3.7 2.6 1.0 .51	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00
6 7 8 9	113 222 259 210 168	406 402 308 190 171	138 232 217 108 78	1.7 1.3 1.1 .50	75 75 75 65 60	.34 .26 .22 .09 .01	.00 .18 .32 .34 .34	0 50 50 50 50	.00 .02 .04 .05 .05
11 12 13 14 15	126 99 87 83 78	140 110 85 79 74	48 29 20 18 16	.00 .00 .03 .01 .00	0 0 50 50 0	.00 .00 .00 .00	.35 .23 .03 .00	50 50 50 0	.05 .03 .00 .00
16 17 18 19 20	73 69 66 64 62	69 66 66 66 65	14 12 12 11	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	.73 7.2 5.1 2.3 .94	60 100 100 75 50	.12 1.9 1.4 .47 .13
21 22 23 24 25	60 60 61 57 52	65 63 62 62 60	11 10 10 9.5 8.4	.01 9.6 9.1 5.3 4.5	50 81 105 60 52	.00 2.6 2.6 .86 .63	.42 .17 .00 .00	50 50 0 0	.06 .02 .00 .00
26 27 28 29 30 31	46 48 57 48 38 32	55 78 162 82 68 70	6.8 10 25 11 7.0 6.0	.54 .00 .00 .00 .00	50 0 0 0 0	.07 .00 .00 .00	.00 .00 .00 .00 .00	0 0 0 0 0	.00 .00 .00 .00 .00
TOTAL	2654		1202.7	98.36		20.29	18.65		4.34
		AUGUST			SEPTEMBER			OCTOBER	
1	.00	0 .	.00	.00	0	.00	.00	0	.00
2	.00	Ö	.00	.00	Ō	.00	.00	Ö	.00
3 4	.00 .00	0	.00 .00	.00 .00	0	.00 .00	.00 .00	0	.00 .00
5	.00	ŏ	-00	.00	0	.00	.00	ŏ	.00
6	.00	0	.00	.00	0	.00	.00	0	.00
7	.00	0	.00	.00	Ō	.00	.00	Ö	.00
8 9	.00 .00	0	.00 .00	.00 .00	0	.00 .00	.00	. 0	.00 .00
10	.00	ŏ	.00	.00	Ö	.00	.00 .00	. 0	.00
11	.00	0	00	.00	•		.00	0	.00
12	.00	Ö	.00 .00	.00	0 0	.00 .00	.00	Ö	.00
13	.00	Ō	.00	.00	0	.00	.00	0	.00
14 15	.00 .00	0	.00 .00	.00 .00	0	.00 .00	.00 .00	0 0	.00
16 17	.00 .00	0	.00 .00	.00	0	.00 .00	.49 17	45 146	.17 6.5
18	.00	0	.00	.00	0	.00	15	109	4.4
19 20	.00 .00	0	.00 .00	.00 .00	0 0	.00 .00	11 6.1	110 90	3.3 1.5
21 22	.00 .00	0	.00 .00	.00 .00	0	.00 .00	16 9.0	129 108	5.6 2.6
23	.00	0	.00	.00	0	.00	3.4	69	.63
24 25	.00 .00	0	.00 .00	.00 .00	0 0	.00 .00	.49 .00	25 0	.03 .00
26 27	.00 .00	0	.00 .00	.00 .00	0 0	.00 .00	.00 .00	0 0	.00 .00
28	.00	0	.00	.00	0	.00	.00	0	.00
. 29	.00 .00	0	.00	.00	0	.00	-00	0 0	.00
30 31	.00	0	.00 .00	.00	 	.00	.00 .00	0	.00 .00

Table 9.--Daily suspended-sediment discharge for streamflow station 07026640 Running Slough near Ledford, Ky.--Continued

Suspended-sediment discharge, in tons per day, November 1984 to April 1985

				• •			•		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		NOVEMBER			DECEMBER			JANUARY	
1 2 3 4 5	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	9.8 9.6 10	18 12 12 18 21	.53 .32 .31 .49 .62	86 67 51 41 39	172 108 72 45 31	40 20 9.9 5.0 3.3
6 7 8 9 10	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	11 10 10 9.5 9.2	20 19 19 18 18	.59 .51 .51 .46 .45	39 41 42 40 38	28 25 23 22 23	2.9 2.8 2.6 2.4 2.4
11 12 13 14 15	.00 .00 .00 .00	0 0 0 0	.00 .00 .00 .00	8.6 7.8 7.6 8.2 9.7	18 17 18 21 25	.42 .36 .37 .46 .65	35 25 18 14 12	24 26 28 28 25	2.3 1.8 1.4 1.1 .81
16 17 18 19 20	.00 .00 1.4 2.4 1.5	0 0 15 52 45	.00 .00 .06 .34	9.6 6.8 5.3 23	27 22 48 219 165	.70 .40 .69 14 8.9	10 10 14 15 7.9	23 18 30 41 29	.62 .49 1.1 1.7 .62
21 22 23 24 25	.09 .00 .00 .00	29 0 0 0 0	.00 .00 .00 .00	101 137 94 68 52	336 284 109 101 69	95 105 28 19 9.7	4.5 3.9 3.9 4.2 4.9	28 25 26 29 28	.34 .26 .27 .33 .37
26 27 28 29 30 31	.00 3.5 11 17 14	0 30 43 27 20	.00 .28 1.3 1.2 .76	39 29 20 14 57 85	58 48 39 30 179 279	6.1 3.8 2.1 1.1 36 64	4.2 3.6 3.1 2.6 2.9 6.4	29 28 24 25 25 120	.33 .27 .20 .18 .20 2.1
TOTAL	50.89		4.12	903.7		401.54	689.1		108.09
		FEBRUARY			MARCH			APRIL	
1 2 3 4 5	7.2 8.7 6.3 5.8 5.9	140 145 128 112 104	2.7 3.4 2.2 1.8 1.7	13 19 24 30	36 49 58 30 38	1.3 2.5 3.8 2.4 3.7	38 25 15 12 15	189 160 133 113 108	19 11 5.4 3.7 4.4
6 7 8 9 10	6.2 6.1 4.8 4.0 8.4	95 91 88 82 91	1.6 1.5 1.1 .89 2.1	37 37 40 54 53	38 35 58 138 110	3.8 3.5 6.3 20 16	20 24 22 21 21	95 85 75 69 65	5.1 5.5 4.5 3.9 3.7
11 12 13 14 15	57 59 50 39 30	161 90 30 18 15	25 14 4-1 1.9 1.2	51 48 45 45 43	85 65 50 19 18	12 8.4 6.1 2.3 2.1	22 22 20 33 57	63 58 51 109 119	3.7 3.4 2.8 9.7
16 17 18 19 20	22 22 38 49 52	13 20 52 55 40	.77 1.2 5.3 7.3 5.6	39 36 32 34 31	17 14 19 72 60	1.8 1.4 1.6 6.5 5.0	46 34 23 13 7-6	99 82 66 53 41	7.5 4.1 1.9 .84
21 22 23 24 25	45 34 28 53 39	25 18 60 466 225	3.0 1.7 4.5 69 24	29 34 35 30 23	47 89 117 100 84	3.7 8.2 11 8.1 5.2	3.6 3.3 9.7 67 45	32 28 134 1070 760	.31 .25 10 194 92
26 27 28 29 30 31	24 12 7.9	90 50 30	5.8 1.6 .64 	16 9.7 9.6 7.7 5.5	71 60 45 30 23 168	3.1 1.6 1.2 .62 .34	28 145 208 154 122	440 837 600 300 429	33 342 337 125 156
TOTAL	724.3		195.60	979.5	***	168.66	1276.2		1419.70

Table 10.--Analyses of stream-bottom material samples at streamflow monitoring stations in the Reelfoot Lake area

[in micrograms per kilogram, except as noted]

- NDd	41.0	<1.0	4.0
PCB	7	₽	₽
Perthane	<1.00	21.00	2.0
хэт іМ	1,	1.2	13
	7	4:1	<b>1</b> 3
Lindane	7	<b>.</b> .1	¢.1
Heptachlor epoxide	7	4.1	¢.1
Heptachlor	4.1	<b>4.1</b>	13
ninbra	7:	¢.1	4.1
Fadosulfan		7.	7
Dieldrin	۲.1	<b>.</b> .	4.1
Tua	<b>4.1</b>	¢.1	4.1
. 300	4.	4.1	12
·· aaa	<b>4.1</b>	<b>1.</b> 3	¢.1
Chlordane	<1.0	41.0	41.0
Aldrin	<b>4.1</b>	<b>د.</b> 1	4.1
Temperature (Deg C)	19.0	16.5	;
Specific conductance (uS/cm at 25°C)	225	280	380
Streamflow (ft <sup>3</sup> /s)	21 228	27 280	38
Тіте	1630	1310	1445
Date	5/30/84 1630	5/31/84 1310	5/30/84 1445
istion	North Reelfoot Cr. at Highway 22, near Clayton, Tenn. (07026370)	South Reelfoot Cr. near Clayton, Tenn. (07026400)	Ruming Slough near Ledford, Ky. (07026640)

Table 11.--Daily rainfall accumulation at rainfall station 07026690 Reelfoot Lake near Phillippy, Tenn.

LOCATION.--Lat 36°27'59", long 89°20'56", Lake County, Hydrologic Unit 08010202, 1.85 miles southeast of Phillippy and 3.0 miles northeast of New Markham.

Accumulated rainfall, in inches, May 1984 to April 1985												
DAY	MAY	JUN	ΰUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	.00	.00	.00	.00	.00	.00	.73	.00	.09	.06	.11	.00
2	.62	.00	.00	.00	.00	.00	.00	.01	.01	.03	.01	.00
3 4	.28	.00	.00	.32	.31	.00	.00	.00	.01	.09	.00	.01
4	.03	.00	.43	.12	.00	.00	.06	.04	.01	.03	.33	.00
5	. 15	.00	. 13	.00	.00	.01	.00	.24	. 14	. 15	.00	.36
6 7	2.47	.04	.01	.00	.00	3.68	.00	.03	.00	.01	.00	.00
7	1.63	.03	.00	.00	.00	.20	.00	.03	.00	.05	.00	.00
8	.02	.01	.01	.00	.00	.01	.08	.00	.00	.07	.76	.00
9 10	.01	.00	.00	.00	1.66	.01	.05	-02	.00	.00	.00	.00
10	.00	.00	.00	.00	.01	.49	.08	.00	.09	.75	.06	.01
11	.00	.00	.00	.00	.49	.03	.00	.00	.00	. 12	.00	.01
12	.00	.00	•00	.00	.00	.00	.00	.06	.01	.09	.00	.01
13	.02	.00	.00	.00	.00	.29	.00	.20	.00	.00	.23	.04
14	.00	.00	.00	.00	.03	.02	.00	.19	.01	.00	-04	1.49
15	.00	.00	.25	.00	.00	. 19	.31	.00	.00	.05	.00	.01
16	.00	.00	.02	-00	.00	1.32	.00	.00	.32	.01	.00	.00
17	.00	.00	.21	.00	.00	.01	.32	.87	.00	-03	.00	.01
18	.00	.00	-00	.00	.01	.05	1.29	-88	.02	.22	.00	.00
19	.00	• 17	.00	•00	.00	.71	.00	•09	.00	.02	.00	.00
20	.00	.63	•00	.00	•00	1.25	.00	1.37	-29	.01	.03	.00
21	.21	.08	.00	.00	.00	.08	.02	.93	.05	.00	.33	.00
22	.05	.23	.00	.06	.00	.07	.02	.00	.00	.07	.18	.12
23	. 19	.48	.00	.01	1.01	.33	.00	.00	.00	.82	.02	.86
24	.03	.00	•00	.00	-17	.01	•00	.36	.00	.00	.00	.01
25	.00	.00	•00	.00	.47	.03	.00	.33	.00	.00	.00	.00
26	.05	.00	.04	.00	.00	.01	.00	.00	.01	.00	.00	.64
27	1.01	.00	.02	.00	.00	.00	1.62	.00	.22	.00	. 16	1.36
28	.00	.03	.00	.23	.00	.25	.00	.01	.02	.00	.00	.03
29	•00	.20	•00	.00	.00	.00	.00	.00	.09		.00	.00
30	.00	.01	.00	.02	.00	.12	.00	1.64	-65		.78	.39
31	.01		.37	•00		.05		.62	.07		.02	
TOTAL	6.78	1.91	1.49	.76	4.16	9.22	4.58	7.92	2.11	2.68	3.06	5.36

Table 12.--Daily rainfall accumulation at rainfall station 362148089255600 Blue Bank rain gage at Blue Bank, Tenn.

LOCATION.--Lat 36°21'48", long 89°25'56", Lake County, Hydrologic Unit 08010202, at State Park Museum in Reelfoot Lake State Park, at Blue Bank, 1.2 miles west of the spillway and 2.9 miles southeast of Tiptonville.

	-		Acc	umulated	rainfall,	in inche	s, May 19	84 to Apr	il 1985			
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
ì	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	.10	.00
2	.40	.00	.00	.00	.00	00	.00	.03	.00	.00	.01	.00
3	.57	-00	-00	-88	.31	.00	-00	.00	.04	.04	.00	.00
4	.00	.00	.43	.06	.00	.00	.02	.02	.00	.01	.27	.00
5	.24	.00	.13	.00	.00	-10	-00	.32	.08	.17	-00	.37
6	1.87	-05	.00	.11	.00	4.06	.00	.10	.00	.01	.00	.01
7	1.62	.03	.00	.01	.00	.10	.00	.00	.00	.00	.01	.00
8	.00	.00	.00	.11	.00	.00	.07	.00	.00	.01	.45	.00
9	.00	.00	.00	.00	1.94	.02	.06	.02	.00	.00	.01	.00
10	.00	.00	.00	.00	.00	. 18	.22	.00	.11	.68	. 15	.00
11	.00	.00	.00	.00	.71	.00	.00	.00	.05	. 14	.01	.04
12	.00	.00	.00	.00	-00	.40	.00	.02	.00	. 13	.00	.02
13	.00	.00	-00	.00	.00	-20	.00	.28	.00	.01	.24	.00
14	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	1.29
15	.00	-00	.10	-28	-00	.40	.30	-00	.01	.01	.00	.01
16	.00	.00	.01	.00	.00	1.20	.00	.00	.30	.02	.00	.00
17	.00	.00	.02	•00	•00	•00	.33	.59	.02	.04	-00	.01
18	.00	. •00	.00	.00	.07	.00	1.28	.86	.01	.24	.00	.00
19	.00	.17	.00	.00	.00	1.00	.00	.08	.00	.03	.00	.00
20	.00	.63	-00	.00	.00	1.20	.00	.96	.02	•01	.00	.00
21	.00	.08	.00	.00	-00	.10	.00	.60	.00	.00	.57	.00
22	.00	.23	.00	.60	.01	• 10	,00	.00	.01	.00	. 17	.19
23	.00	.48	.00	.00	.74	.40	.01	.00	.00	.88	.05	.78
24	.00	.00	.00	.00	. 15	.10	.00	.22	.00	.00	.02	.02
25	.00	.00	.00	.00	.48	.00	.00	.01	.00	.00	.00	.01
26	.27	.00	.00	.00	.00	.00	.02	.00	.01	.00	.00	.64
27	2.73	.00	.00	.00	.00	.00	1.65	.00	.21	.00	.17	.66
28	.02	.03	.00	.00	.00	.30	.00	.02	.03	.00	.01	.02
29	.00	.20	.00	.00	.00	.00	.00	.00	.01		.00	.01
30	.00	.00	.00	.27	.00	.00	.00	1.78	.52		.83	.25
31	.00		•00	.00		.10		.52	.00		.02	
TOTAL	7.72	1.90	.69	2.32	4.41	9.96	3.96	6.50	1.55	2.43	3.09	4.33

Table 13.--Midnight lake stages for lake-stage station 07026690 Reelfoot Lake near Phillippy, Tenn.

LOCATION.--Lat 36°27'59", long 89°20'56", Lake County, Hydrologic Unit 08010202, 1.85 miles southeast of Phillippy, and 3.0 miles northeast of New Markham.

DRAINAGE AREA. -- 240 mi2.

Midnight lake stage, in feet, May 1984 to May 1985

						•	•	•				
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1 2 3 4 5	12.49 12.47 12.51 12.52 12.49	12.11 12.07 12.01 11.98 11.95	11.52 11.50 11.51 11.53 11.51	10.75 10.73 10.66 10.62 10.54		10.05 10.04	11.93 11.88 11.91 11.90 11.84	12.04 12.02 12.01 11.96 11.98	13.36 13.27 13.27 13.20 13.10	11.81 11.92 11.93 11.96 12.00	12.04 11.95 11.91 11.90 11.84	12.33 12.29 12.26 12.31 12.31
6 7 8 9 10	12.85 13.55 13.85 13.79 13.68	11.93 11.90 11.88 11.85 11.82	11.49 11.44 11.45 11.44 11.44	10.51 10.50 10.49 10.47 10.47		11.19 11.19	11.82 11.83 11.84 11.90 11.87	12.00 12.04 12.02 12.04 12.01	13.02 12.93 12.89 12.87 12.82	12.01 12.04 12.05 12.06 12.18	11.79 11.82 11.86 11.98 12.06	12.23 12.17 12.12 12.08 12.08
11 12 13 14 15	13.58 13.46 13.35 13.22 13.11	11.79 11.77 11.75 11.75 11.73	11.39 11.36 11.34 11.33 11.34	10.47 10.47 10.46		11.19 11.19 11.19 11.18 11.21	11.80 11.79 11.79 11.83 11.82	12.03 12.07 12.08 12.07 12.05	12.70 12.62 12.54 12.44 12.33	12.51 12.58 12.53 12.44 12.33	12.12 12.08 12.10 12.12 12.12	12.05 12.02 12.00 12.11 12.14
16 17 18 19 20	12.98 12.85 12.74 12.63 12.51	11.73 11.73 11.70 11.65 11.66	11.29 11.22 11.12 11.03 10.98			11.33 11.34 11.43 11.49 11.66	11.79 11.82 11.98 12.14 12.12	12.07 12.12 12.42 12.60 12.68	12.24 12.16 12.10 12.08 12.07	12.29 12.29 12.41 12.51 12.52	12.11 12.06 12.07 12.08 12.04	12.13 12.12 12.11 12.08 12.04
21 22 23 24 25	12.44 12.36 12.26 12.16 12.11	11.64 11.66 11.69 11.62 11.62	10.95 10.94 10.93 10.90 10.90			11.77 11.80 11.81 11.82 11.82	12.07 12.03 11.98 11.93 11.89	13.08 13.11 13.05 12.98 12.96	11.95 11.91 11.85 11.83 11.79	12.49 12.43 12.49 12.52 12.43	12.00 12.04 12.08 12.03 12.00	12.00 12.01 12.08 12.09 12.08
26 27 28 29 30 31	12.06 12.25 12.33 12.28 12.21 12.16	11.61 11.60 11.57 11.57 11.52	10.89 10.80 10.80 10.75 10.75			11.81 11.83 11.83 11.83 11.85 11.85	11.91 12.03 12.11 12.12 12.07	12.93 12.88 12.89 12.89 13.18 13.38	11.74 11.73 11.70 11.70 11.78 11.80	12.32 12.20 12.11	12.02 12.11 12.16 12.09 12.12 12.36	12.12 12.34 12.54 12.55 12.54
MEAN MAX MIN	12.75 13.85 12.06	11.76 12.11 11.52	11.18 11.53 10.75				11.92 12.14 11.79	12.44 13.38 11.96	12.38 13.36 11.70	12.26 12.58 11.81	12.03 12.36 11.79	12.18 12.55 12.00

 ${\tt NOTE.--}$  There is no midnight lake stage record for August 12 through October 2.

Table 14.--Midnight lake stages for lake-stage station 07027000 Reelfoot Lake near Tiptonville, Tenn.

LOCATION.--Lat 36°21'09", long 89°25'07", Lake County, Hydrologic Unit 08010202, at Middle Landing in Reelfoot Lake State Park, 0.4 mile east of Blue Bank, 0.8 mile west of the spillway, and 3.3 miles southeast of Tiptonyille.

DRAINAGE AREA. -- 240 mi2.

Midnight lake stage, i	in feet.	May 1984	l to April	1985
------------------------	----------	----------	------------	------

DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	12.36	12.23	11.76	10.96	10.36	10.27	12.28	12.21	13.53	11.92	12.07	12.37
2	12.38	12.20	11.73	10.89	10.34	10.24	12.20	12.24	13.54	12.04	11.99	12.34
3	12.48	12.21	11.68	10.80	10.37	10.23	12.12	12.20	13.48	12.05	11.85	12.31
4	12.45	12.14	11.70	10.70	10.34	10.23	12.11	12.22	13.32	12.08	11.87	12.16
5	12.47	12.08	11.71	10.64	10.32	10.23	12.12	12.22	13.24	12.12	11.93	12.28
6 7 8 9 10	12.61 13.09 13.43 13.51 13.48	12.04 12.03 12.00 11.99 11.98	11.70 11.71 11.68 11.64 11.60	10.65 10.64 10.62 10.61 10.60	10.29 10.24 10.20 10.36 10.36	10.81 10.89 10.99 11.09	12.06 12.01 12.01 11.99 12.00	12.18 12.14 12.18 12.14 12.21	13.06 13.09 13.12 13.10 13.04	12.13 12.16 12.17 12.18 12.31	11.91 11.88 12.03 12.07 12.15	12.31 12.32 12.30 12.26 12.21
11	13.40	11.98	11.59	10.61	10.42	11.25	12.07	12.18	12.90	12.41	12.31	12.19
12	13.40	11.97	11.60	10.61	10.42	11.32	12.06	12.18	12.76	12.71	12.26	12.17
13	13.34	11.96	11.58	10.60	10.42	11.37	12.04	12.23	12.56	12.66	12.31	12.16
14	13.28	11.95	11.54	10.58	10.46	11.38	12.00	12.25	12.54	12.57	12.33	12.27
15	13.16	11.94	11.52	10.59	10.41	11.39	12.08	12.19	12.48	12.46	12.34	12.28
16	13.04	11.90	11.45	10.58	10.39	11.50	12.08	12.17	12.30	12.42	12.35	12.28
17	12.92	11.87	11.33	10.56	10.36	11.53	12.12	12.30	12.19	12.43	12.30	12.27
18	12.79	11.86	11.23	10.54	10.35	11.51	12.31	12.42	12.16	12.52	12.23	12.22
19	12.66	11.86	11.18	10.54	10.33	11.67	12.35	12.57	12.24	12.53	12.20	12.19
20	12.51	11.86	11.18	10.52	10.32	11.81	12.32	12.72	12.17	12.50	12.20	12.17
21	12.42	11.86	11.18	10.49	10.30	11.95	12.27	12.88	12.05	12.46	12.29	12.15
22	12.29	11.84	11.18	10.53	10.27	12.03	12.22	13.07	12.01	12.38	12.24	12.10
23	12.22	11.86	11.12	10.51	10.32	12.08	12.17	13.11	11.95	12.38	12.21	12.17
24	12.20	11.87	11.11	10.51	10.32	12.06	12.14	13.26	11.95	12.43	12.26	12.20
25	12.16	11.85	11.10	10.47	10.43	12.04	12.07	13.13	11.93	12.43	12.19	12.22
26 27 28 29 30 31	12.24 12.42 12.48 12.40 12.36 12.32	11.81 11.79 11.79 11.80 11.79	11.06 11.04 11.03 11.02 10.98 10.96	10.45 10.41 10.38 10.36 10.36 10.37	10.36 10.35 10.34 10.33 10.30	12.05 12.03 12.13 12.11 12.13 12.12	11.96 12.13 12.16 12.20 12.21	13.08 13.04 12.98 12.96 13.28 13.26	11.90 11.88 11.88 11.90 11.98 11.91	12.37 12.27 12.15	12.14 12.03 12.06 12.17 12.26 12.26	12.25 12.34 12.43 12.45 12.47
MEAN	12.72	11.94	11.38	10.57	10.35	11.41	12.13	12.55	12.52	12.33	12.15	12.26
MAX	13.51	12.23	11.76	10.96	10.46	12.13	12.35	13.28	13.54	12.71	12.35	12.47
MIN	12.16	11.79	10.96	10.36	10.20	10.23	11.96	12.14	11.88	11.92	11.85	12.10

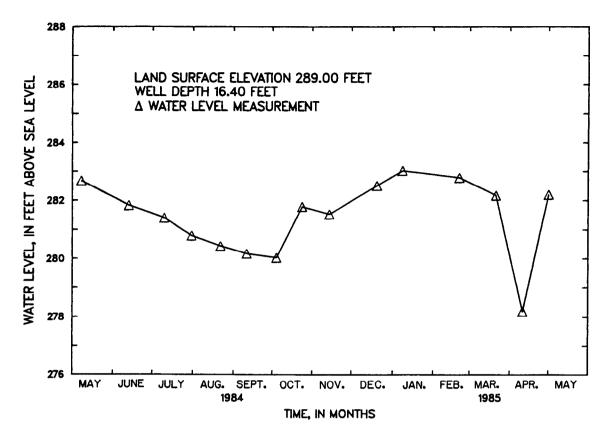


Figure 2.-- Hydrograph of well RF:1.

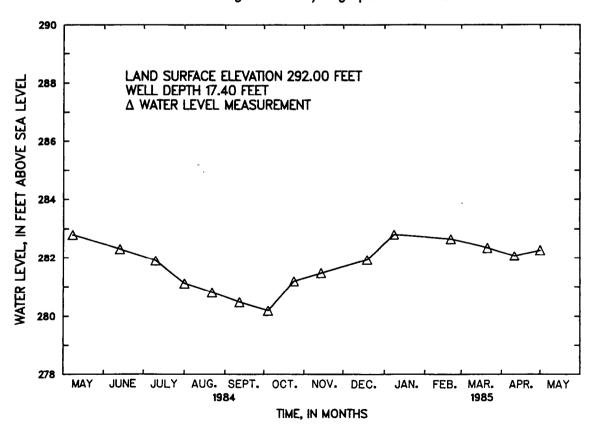


Figure 3.— Hydrograph of well RF:2.

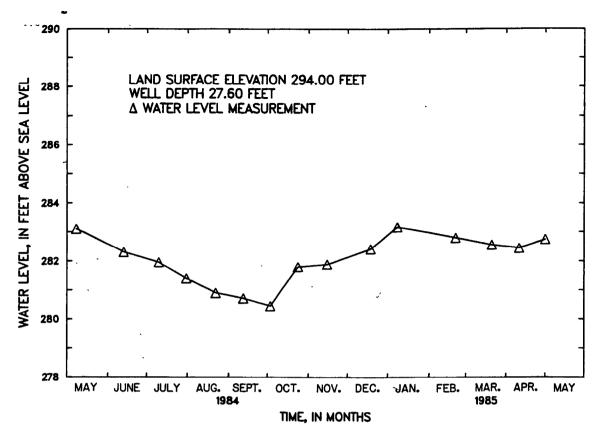


Figure 4.-- Hydrograph of well RF:5.

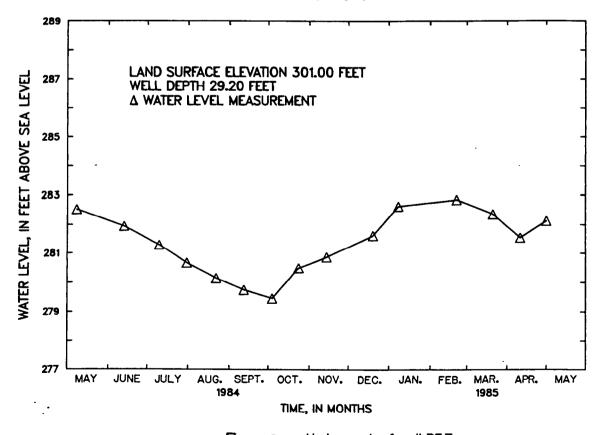


Figure 5.-- Hydrograph of well RF:7.

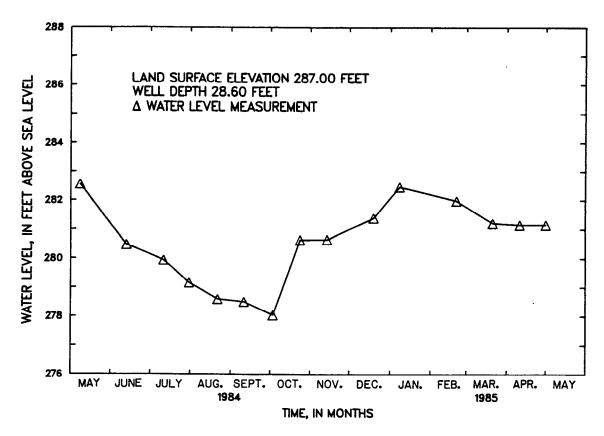


Figure 6.-- Hydrograph of well RF:8.

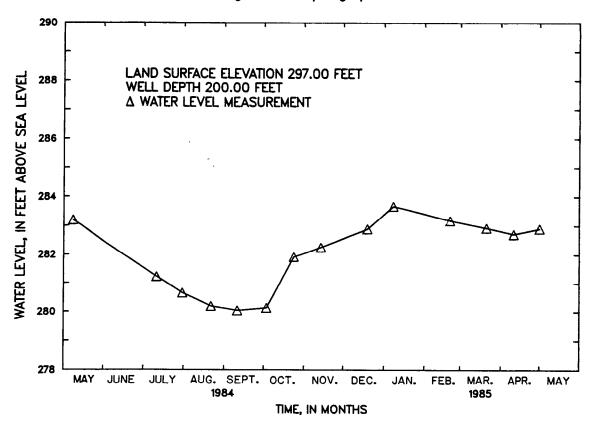


Figure 7.— Hydrograph of well RF:9.

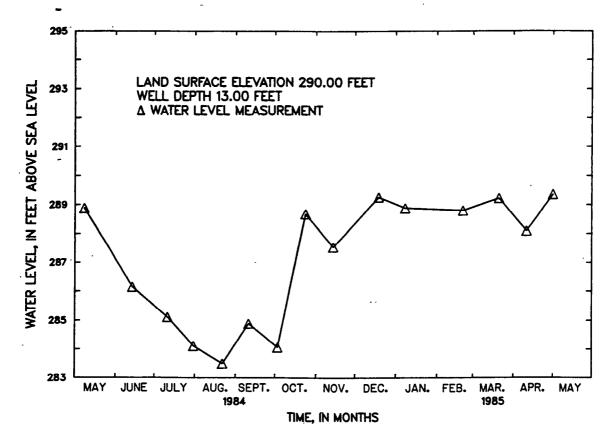


Figure 8.— Hydrograph of well RF:10.

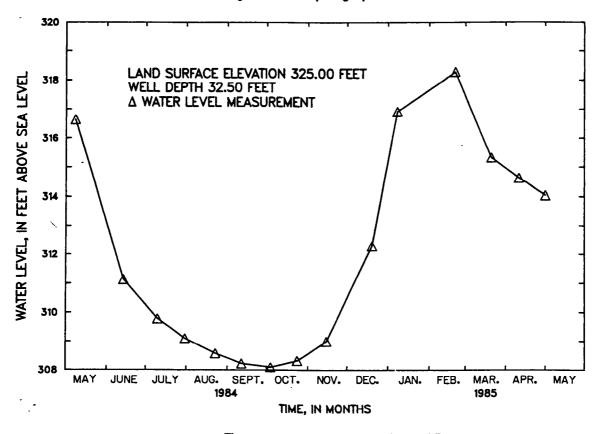


Figure 9.— Hydrograph of well RF:11.

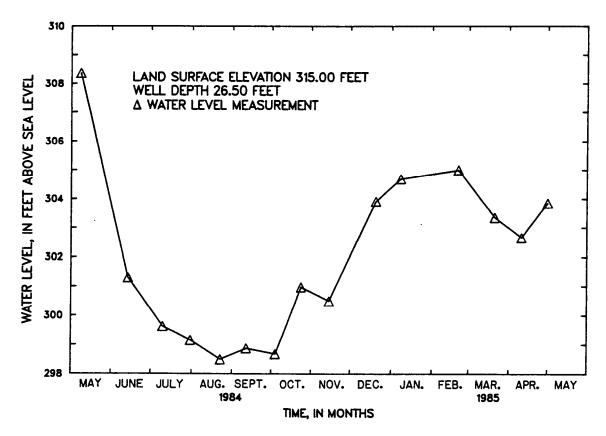


Figure 10. -- Hydrograph of well RF:12.

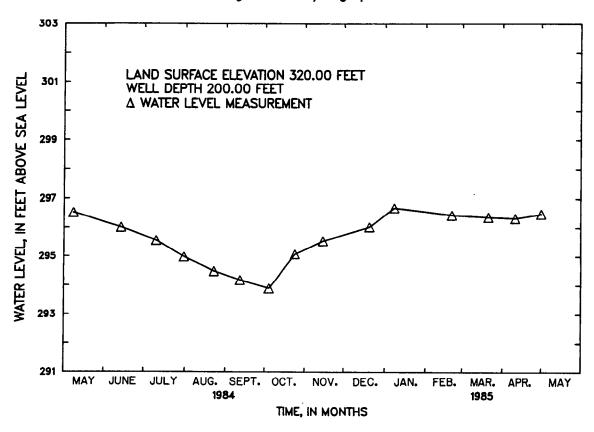


Figure 11.-- Hydrograph of well RF:15.

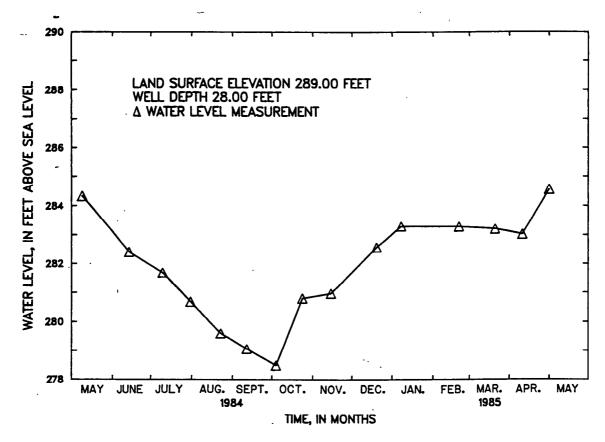


Figure 12. -- Hydrograph of well RF:17.

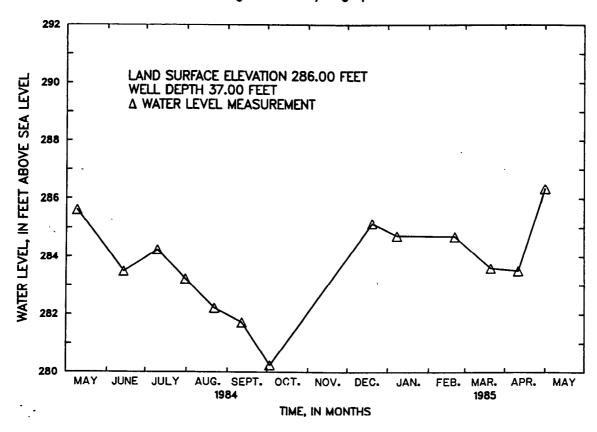


Figure 13. -- Hydrograph of well RF:18.

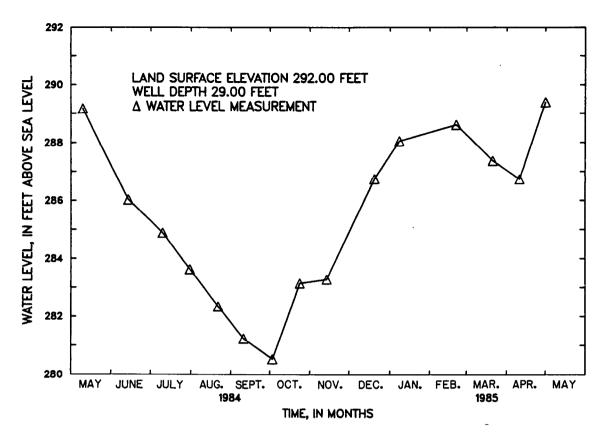


Figure 14.-- Hydrograph of well RF:19.

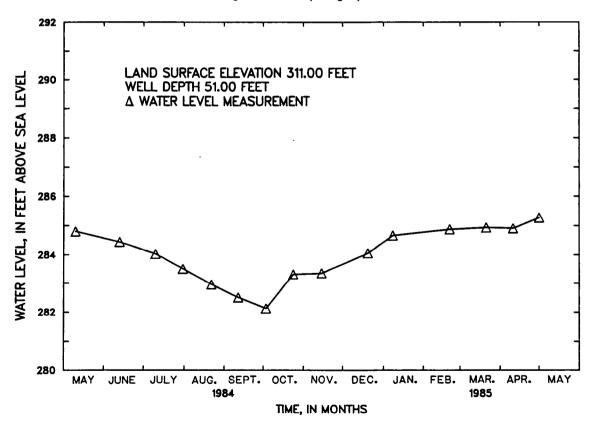


Figure 15.— Hydrograph of well RF:21.

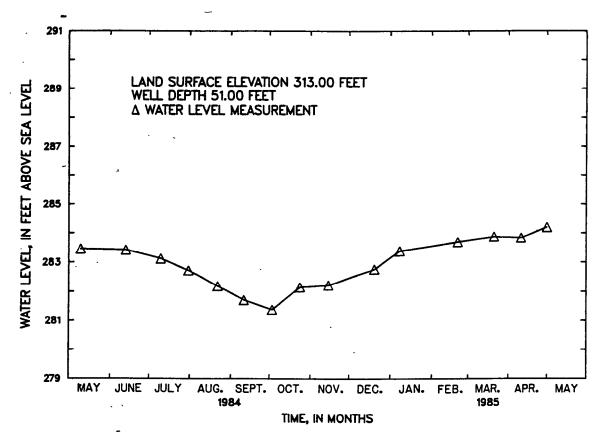


Figure 16. -- Hydrograph of well RF:22.

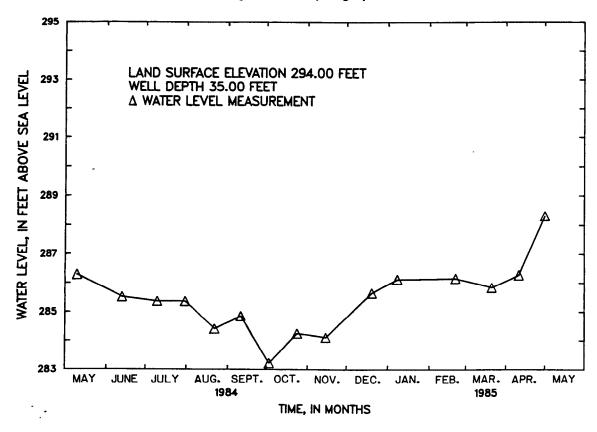


Figure 17.— Hydrograph of well RF:23.

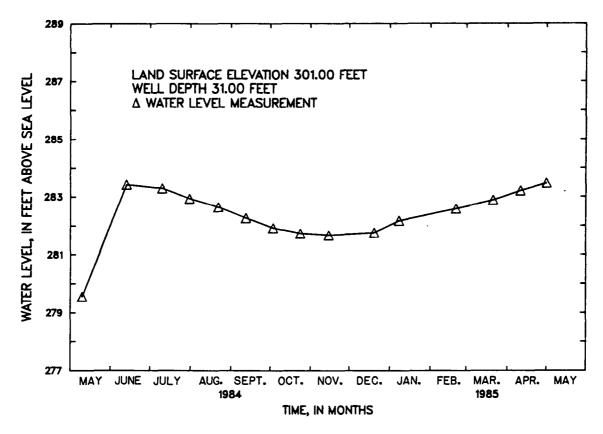


Figure 18.— Hydrograph of well RF:24.

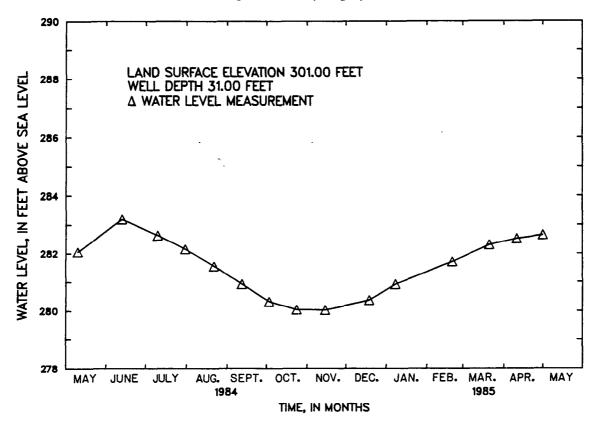


Figure 19. -- Hydrograph of well RF:25.

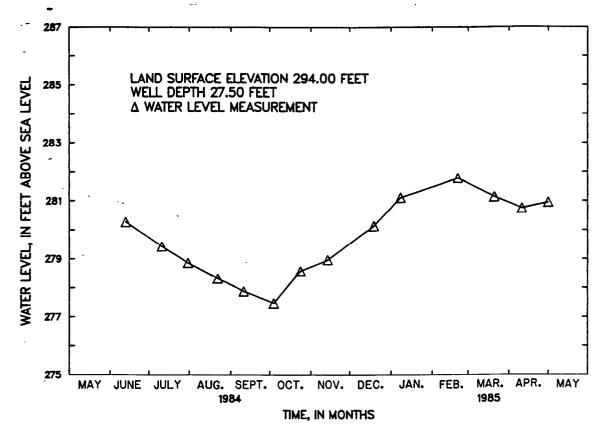


Figure 20.— Hydrograph of well RF:27.

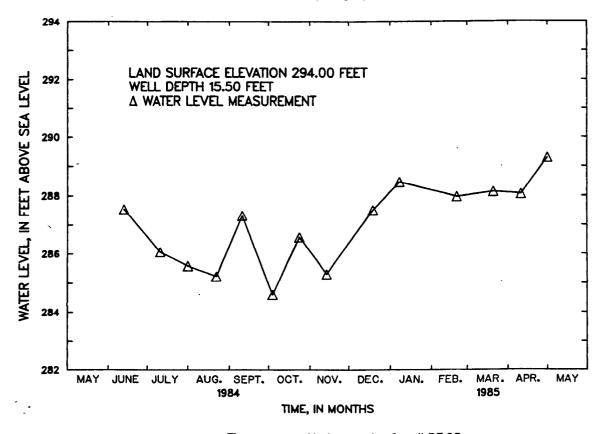


Figure 21.— Hydrograph of well RF:28.

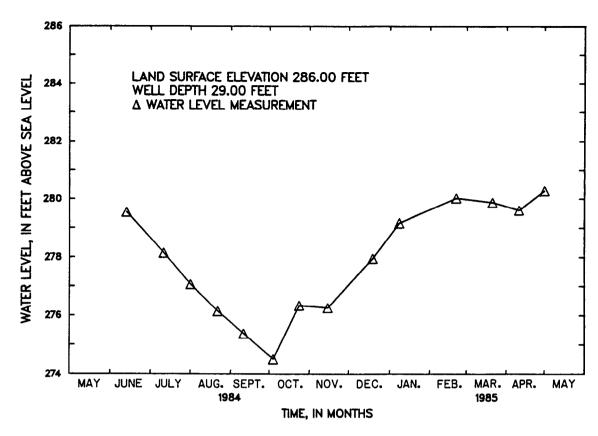


Figure 22.-- Hydrograph of well RF:30.

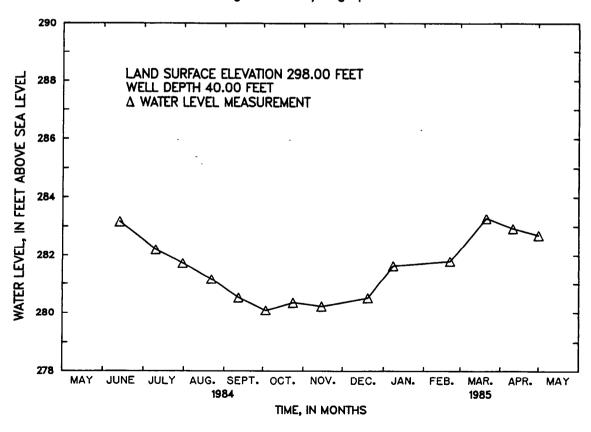


Figure 23.-- Hydrograph of well RF:32.

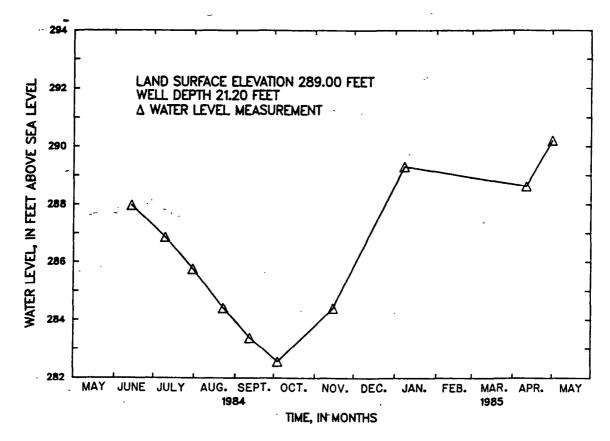


Figure 24.-- Hydrograph of well RF:34.

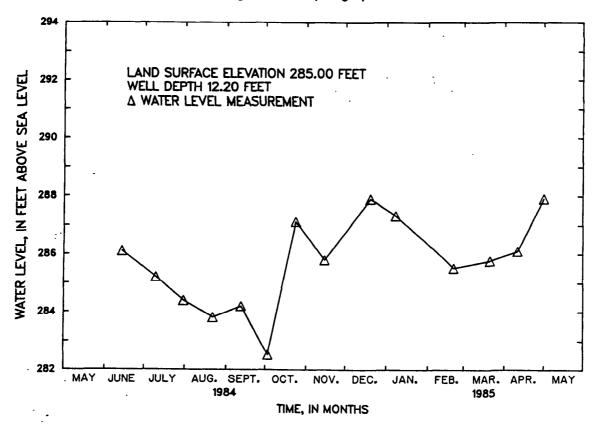


Figure 25.-- Hydrograph of well RF:35.

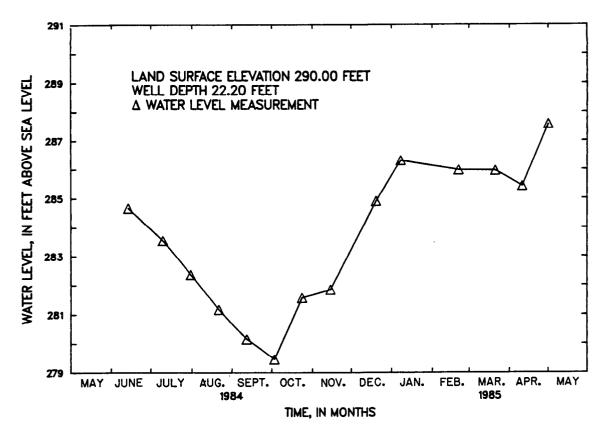


Figure 26.-- Hydrograph of well RF:36.

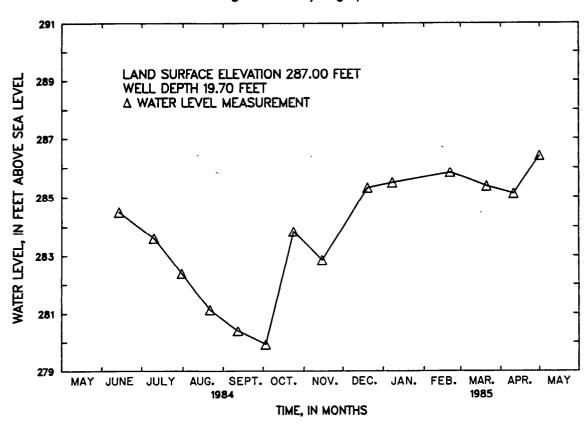


Figure 27. -- Hydrograph of well RF:38.

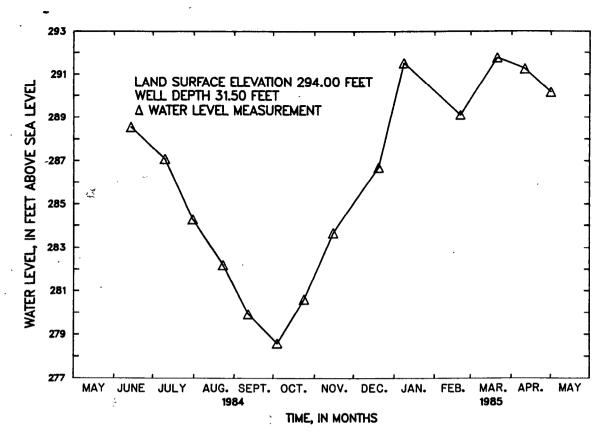


Figure 28.— Hydrograph of well RF:39.

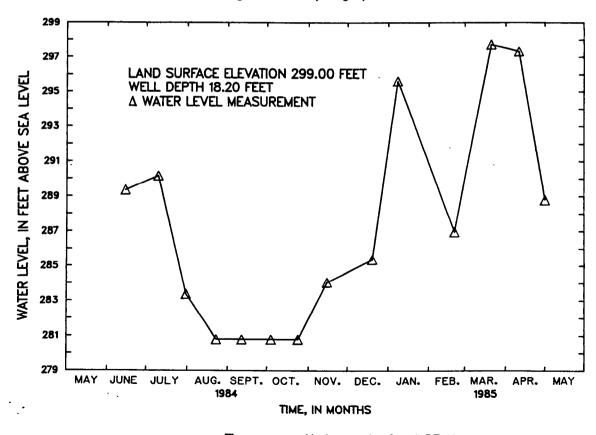


Figure 29.-- Hydrograph of well RF:41.

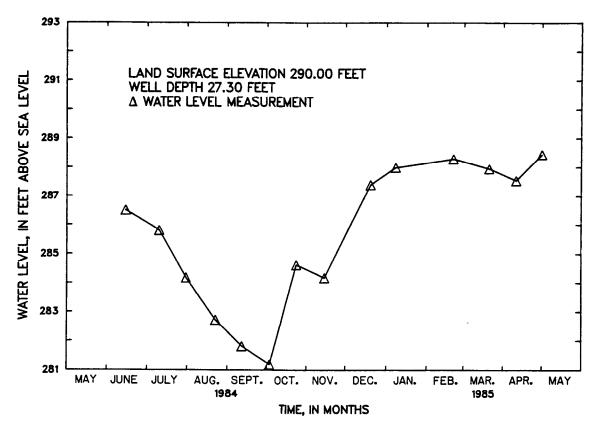


Figure 30.-- Hydrograph of well RF:42.

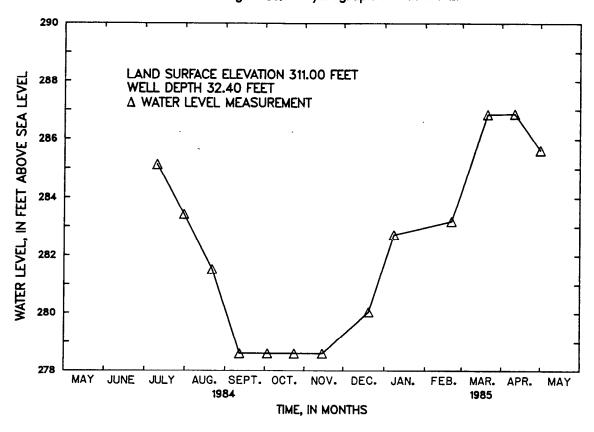


Figure 31. -- Hydrograph of well RF:43.